

WHAT IS CLAIMED IS:

1. A robot hand apparatus comprising:

a base;

a motor fixed to the base;

5 a first link which is supported by the base while allowing the rotation around a first axis and which has a first guide path in which a control axis is movable, the first axis is in parallel to an actuation axis of the motor and is positioned apart from the actuation axis;

10 a second link which connects with the actuation axis of the motor and supports the control axis, and which moves the control axis within the first guide path in accordance with the rotation of the actuation axis of the motor; and

a finger link which is supported by the first link while
15 allowing the rotation around a second axis crossing the first axis, the finger-link directly or indirectly connects with the control axis so that the finger-link is rotated around the second axis in accordance with the actuation of the control axis.

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2. A robot hand apparatus according to claim 1, wherein the base has a second guide path within the moveable range of the first guide path, and

the second link includes

25 a rotator fixed to the actuation axis; and

a connection link which is rotatably supported by

the rotator and supports the control axis.

3. A robot hand apparatus according to claim 2, wherein
the second guide path is formed by connecting a first guide
5 hole, which elongates in a circumference direction around the
first axis, and a second guide hole, which elongates in a radial
direction with respect to the first axis.

4. A robot hand apparatus according to claim 3, wherein
10 the first guide hole guides the control axis in a
circumference direction around the first axis, and
the second guide hole guides the control axis in a radial
direction with respect to the first axis.

15 5. A robot hand apparatus according to claim 3, wherein
the control axis is adapted to slide within the first guide
hole and the second guide hole.

6. A robot hand apparatus according to claim 2, wherein
20 the position where the connection link is supported of
the rotator is an eccentric position with respect to the
position where the actuation axis is fixed to.

7. A robot hand apparatus according to claim 5, wherein
25 a protrusion, which contacts with a protruding part 25
provided on the base and controls the rotation of the rotator,

is provided to the rotator, wherein

the position where the protrusion is provided is the position opposite across the position where the actuation axis is fixed to with regard to the position where the connection
5 link is supported to.

8. A robot hand apparatus according to claim 3, wherein the first guide path is a long hole which elongates in a radial direction with respect to the control axis.

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9. A robot hand apparatus according to claim 8, wherein the elongation direction of the first guide path agrees with a second guide hole of the second guide path when the finger link is rotated around the second axis.

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10. A robot hand apparatus according to claim 9, wherein a lifting member, which connects with the control axis and moves together with the control axis when the control axis moves along the second guide path, is provided to the connection
20 link,

the lifting member is provided with an arm member which roatatably connects the finger link and rotates the finger link around the second axis.

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